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<151> 2000-07-19

<150> US 60/277,487

<151> 2001-03-21

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<151> 2001-07-12

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<150> US 60/328,605

<151> 2001-10-10

<150> US 60/328,491

<151> 2001-10-10

<160> 70

<170> PatentIn version 3.1

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<213> Homo sapiens

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His	Arg	Ala	Arg	Ala	Trp	Arg	Phe	Leu	Thr	Tyr	Met	Phe	Met	His	Val
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Val Pro Leu Glu Met Val His Gly Leu Leu Arg Ile Ser Leu Leu Tyr  
 275 280 285

Leu Ala Gly Val Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met  
 290 295 300

Arg Ala Pro Val Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser  
 305 310 315 320

Ala His Leu Ala Asn Val Val Met Asn Trp Ala Gly Met Arg Cys Pro  
 325 330 335

Tyr Lys Leu Leu Arg Met Val Leu Ala Leu Val Cys Met Ser Ser Glu  
 340 345 350

Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser  
 355 360 365

Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly  
 370 375 380

Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg  
 385 390 395 400

Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu  
 405 410 415

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His Ile Pro Pro Pro  
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<212> DNA

<213> Homo sapiens

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gacctagggc cacctgctgt tccctgggat tcattgtcctt ctggggagga gggaggaccc 180

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Asp Gly Gly Gly Lys Asp Arg Ala Lys Ser Lys Lys Val His Arg Ile
35          40          45

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Arg Ala Asn Cys Phe Pro Pro Pro Val Phe Ile Ile Ser Ile Ser Leu  
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Ala Glu Leu Ala Val Phe Ile Tyr Tyr Ala Val Trp Lys Pro Gln Lys  
85 90 95

Gln Trp Ile Thr Leu Asp Thr Gly Ile Leu Glu Ser Pro Phe Ile Tyr  
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Ser Pro Glu Lys Arg Glu Glu Ala Trp Arg Phe Ile Ser Tyr Met Leu  
115 120 125

Val His Ala Gly Val Gln His Ile Leu Gly Asn Leu Cys Met Gln Leu  
130 135 140

Val Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu Arg Val Gly  
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Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala Ser Ser Ile  
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Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly Val Tyr Ala  
180 185 190

Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe Gln Glu Met  
195 200 205

Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile Leu Ile Ile  
210 215 220

Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe Val Pro Glu  
225 230 235 240

Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly Gly Phe Ala  
245 250 255

Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp Lys Ala Leu  
260 265 270

Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr Leu Ala Cys

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 35 40 45

Gly Tyr Gln Asp Phe Val Ser Leu Val Ser Asn Lys Arg Ser Asn Ser  
 50 55 60

Phe Arg Gln Ala Ile Leu Gln Gly Asn Arg Arg Leu Ser Ser Lys Ala  
 65 70 75 80

Leu Leu Glu Glu Lys Gly Leu Ser Leu Ser Gln Arg Leu Ile Arg His  
 85 90 95

Val Ala Tyr Glu Thr Leu Pro Arg Glu Ile Asp Arg Lys Trp Tyr Tyr  
 100 105 110

Asp Ser Tyr Thr Cys Cys Pro Pro Pro Trp Phe Met Ile Thr Val Thr  
 115 120 125

Leu Leu Glu Val Ala Phe Phe Leu Tyr Asn Gly Val Ser Leu Gly Gln  
 130 135 140

Phe Val Leu Gln Val Thr His Pro Arg Tyr Leu Lys Asn Ser Leu Val  
 145 150 155 160

Tyr His Pro Gln Leu Arg Ala Gln Val Trp Arg Tyr Leu Thr Tyr Ile  
 165 170 175

Phe Met His Ala Gly Ile Glu His Leu Gly Leu Asn Val Val Leu Gln  
 180 185 190



Leu Leu Val Gly Val Pro Leu Glu Met Val His Gly Ala Thr Arg Ile  
 195 200 205

Gly Leu Val Tyr Val Ala Gly Val Val Ala Gly Ser Leu Ala Val Ser  
 210 215 220

Val Ala Asp Met Thr Ala Pro Val Val Gly Ser Ser Gly Gly Val Tyr  
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Ala Leu Val Ser Ala His Leu Ala Asn Ile Val Met Asn Trp Ser Gly  
 245 250 255

Met Lys Cys Gln Phe Lys Leu Leu Arg Met Ala Val Ala Leu Ile Cys  
 260 265 270

Met Ser Met Glu Phe Gly Arg Ala Val Trp Leu Arg Phe His Pro Ser  
 275 280 285

Ala Tyr Pro Pro Cys Pro His Pro Ser Phe Val Ala His Leu Gly Gly  
 290 295 300

Val Ala Val Gly Ile Thr Leu Gly Val Val Val Leu Arg Asn Tyr Glu  
 305 310 315 320

Gln Arg Leu Gln Asp Gln Ser Leu Trp Trp Ile Phe Val Ala Met Tyr  
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Leu Leu Asp Leu Lys Leu Pro Pro Pro Pro  
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 35 40 45

Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg  
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Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile

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Ser	Leu	Ile	Lys	Pro	Leu	Phe	Phe	Thr	Val	Gly	Phe	Thr	Gly	Cys	Ala
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Phe	Gly	Ser	Ala	Ala	Ile	Trp	Gln	Tyr	Glu	Ser	Leu	Lys	Ser	Arg	Val
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Asn	Leu	Ser	Asp	Gly	Gln	Arg	Thr	Val	Thr	Gly	Ile	Ile	Ala	Ala	Asn
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Val	Leu	Val	Phe	Cys	Leu	Trp	Arg	Val	Pro	Ser	Leu	Gln	Arg	Thr	Met
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Ile	Arg	Tyr	Phe	Thr	Ser	Asn	Pro	Ala	Ser	Lys	Val	Leu	Cys	Ser	Pro
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Met	Leu	Leu	Ser	Thr	Phe	Ser	His	Phe	Ser	Leu	Phe	His	Met	Ala	Ala
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Ala Gly Met Ile Leu Gly Trp Lys Phe Phe Asp His Ala Ala His Leu  
 325 330 335

Gly Gly Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu  
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 35 40 45

Ser Val Ser Met Pro Ala Glu Thr Ala His Ile Ser Ser Pro His His  
 50 55 60

Glu Leu Arg Arg Pro Val Leu Gln Arg Gln Thr Ser Ile Thr Gln Thr  
 65 70 75 80

Ile Arg Arg Gly Thr Ala Asp Trp Phe Gly Val Ser Lys Asp Ser Asp  
 85 90 95

Ser Thr Gln Lys Trp Gln Arg Lys Ser Ile Arg His Cys Ser Gln Arg  
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Tyr Gly Lys Leu Lys Pro Gln Val Leu Arg Glu Leu Asp Leu Pro Ser  
 115 120 125

Gln Asp Asn Val Ser Leu Thr Ser Thr Glu Thr Pro Pro Pro Leu Tyr  
 130 135 140

Val Gly Pro Cys Gln Leu Gly Met Gln Lys Ile Ile Asp Pro Leu Ala  
145 150 155 160

Arg Gly Arg Ala Phe Arg Val Ala Asp Asp Thr Ala Glu Gly Leu Ser  
165 170 175

Ala Pro His Thr Pro Val Thr Pro Gly Ala Ala Ser Leu Cys Ser Phe  
180 185 190

Ser Ser Ser Arg Ser Gly Phe His Arg Leu Pro Arg Arg Arg Lys Arg  
195 200 205

Glu Ser Val Ala Lys Met Ser Phe Arg Ala Ala Ala Ala Leu Met Lys  
210 215 220

Gly Arg Ser Val Arg Asp Gly Thr Phe Arg Arg Ala Gln Arg Arg Ser  
225 230 235 240

Phe Thr Pro Ala Ser Phe Leu Glu Glu Asp Thr Thr Asp Phe Pro Asp  
245 250 255

Glu Leu Asp Thr Ser Phe Phe Ala Arg Glu Gly Ile Leu His Glu Glu  
260 265 270

Leu Ser Thr Tyr Pro Asp Glu Val Phe Glu Ser Pro Ser Glu Ala Ala  
275 280 285

Leu Lys Asp Trp Glu Lys Ala Pro Glu Gln Ala Asp Leu Thr Gly Gly  
290 295 300

Ala Leu Asp Arg Ser Glu Leu Glu Arg Ser His Leu Met Leu Pro Leu  
305 310 315 320

Glu Arg Gly Trp Arg Lys Gln Lys Glu Gly Ala Ala Ala Pro Gln Pro  
325 330 335

Lys Val Arg Leu Arg Gln Glu Val Val Ser Thr Ala Gly Pro Arg Arg  
340 345 350

Gly Gln Arg Ile Ala Val Pro Val Arg Lys Leu Phe Ala Arg Glu Lys  
355 360 365

Arg Pro Tyr Gly Leu Gly Met Val Gly Arg Leu Thr Asn Arg Thr Tyr  
370 375 380

Arg Lys Arg Ile Asp Ser Phe Val Lys Arg Gln Ile Glu Asp Met Asp  
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Asp His Arg Pro Phe Phe Thr Tyr Trp Leu Thr Phe Val His Ser Leu  
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Val Ala Ile Leu Ala Val Cys Ile Tyr Gly Ile Ala Pro Val Gly Phe  
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Ser Gln His Glu Thr Val Asp Ser Val Leu Arg Asn Arg Gly Val Tyr  
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Ser Glu Ala Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Met Arg  
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Gln Asp Pro Gln Val His Ser Phe Ile Arg Ser Ala Arg Glu Arg Glu  
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Lys His Ser Ala Cys Cys Val Arg Asn Asp Arg Ser Gly Cys Val Gln  
500 505 510

Thr Ser Glu Glu Glu Cys Ser Ser Thr Leu Ala Val Trp Val Lys Trp  
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Pro Ile His Pro Ser Ala Pro Glu Leu Ala Gly His Lys Arg Gln Phe  
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Gly Ser Val Cys His Gln Asp Pro Arg Val Cys Asp Glu Pro Ser Ser  
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Glu Asp Pro His Glu Trp Pro Glu Asp Ile Thr Lys Trp Pro Ile Cys  
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Thr Lys Asn Ser Ala Gly Asn His Thr Asn His Pro His Met Asp Cys  
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Val Ile Thr Gly Arg Pro Cys Cys Ile Gly Thr Lys Gly Arg Cys Glu



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Arg	Cys	Gln	Ile	Ile	Ile	Phe	Gln	Val	Val	Phe	Leu	Gly	Leu	Leu	Ala
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Glu Leu Asp Ala Gln Leu His  
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Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly  
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Glu Glu Met Ser Ser  
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe  
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln  
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Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg  
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Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys  
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser  
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe  
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val  
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly  
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val  
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro  
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Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile

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Arg	Lys	Asp	Gly	Gln	Ile	Glu	Gln	Leu	Val	Leu	Arg	Glu	Arg	Asp	Leu
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Glu	Arg	Asp	Ser	Gly	Cys	Cys	Val	Gln	Asn	Asp	His	Ser	Gly	Cys	Ile
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Gln	Thr	Gln	Arg	Lys	Asp	Cys	Ser	Glu	Thr	Leu	Ala	Thr	Phe	Val	Lys
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Phe	Tyr	Arg	Leu	Trp	Leu	Ser	Leu	Phe	Leu	His	Ala	Gly	Val	Val	His
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Cys	Leu	Val	Ser	Val	Val	Phe	Gln	Met	Thr	Ile	Leu	Arg	Asp	Leu	Glu
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Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu  
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Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val  
485 490 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe  
500 505 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu  
515 520 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu  
530 535 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp  
545 550 555 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala  
565 570 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn  
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Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe  
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Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His  
610 615

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Gln Pro Ala Ser Arg Arg Gly Ala Gly Thr Thr Ala Ala Met Ala Ala  
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Ser Gly Pro Gly Cys Arg Ser Trp Cys Leu Cys Pro Glu Val Pro Ser  
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Ala Thr Phe Phe Thr Ala Leu Leu Ser Leu Leu Val Ser Gly Pro Arg  
65 70 75 80

Leu Phe Leu Leu Gln Gln Pro Leu Ala Pro Ser Gly Leu Thr Leu Lys  
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Ser Glu Ala Leu Arg Asn Trp Gln Val Tyr Arg Leu Val Thr Tyr Ile  
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Phe Val Tyr Glu Asn Pro Ile Ser Leu Leu Cys Gly Ala Ile Ile Ile  
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Trp Arg Phe Ala Gly Asn Phe Glu Arg Thr Val Gly Thr Val Arg His  
130 135 140

Cys Phe Phe Thr Val Ile Phe Ala Ile Phe Ser Ala Ile Ile Phe Leu  
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Ser Phe Glu Ala Val Ser Ser Leu Ser Lys Leu Gly Glu Val Glu Asp  
165 170 175

Ala Arg Gly Phe Thr Pro Val Ala Phe Ala Met Leu Gly Val Thr Thr  
180 185 190

Val Arg Ser Arg Met Arg Arg Ala Leu Val Phe Gly Met Val Val Pro  
195 200 205

Ser Val Leu Val Pro Trp Leu Leu Leu Gly Ala Ser Trp Leu Ile Pro  
210 215 220

Gln Thr Ser Phe Leu Ser Asn Val Cys Gly Leu Ser Ile Gly Leu Ala  
225 230 235 240

Tyr Ala His Leu Leu Leu Phe His Arg Pro Leu Arg Ala Ser Gly Ala  
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Glu Ala Arg Ser Asp Leu Pro Leu Gln Pro Asp Glu Glu Asp Ile Arg  
260 265 270

Val Gln Val Arg Leu Arg Val Phe Ser Arg Glu Glu Gly Ser Pro Glu  
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Pro Glu Thr Glu Pro Gly Ala Trp Leu Leu Pro His Thr Glu Leu Pro  
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Pro Ser Pro Val Pro Lys Pro Pro Cys Val Pro Asp Ala Ala Arg Gln  
305 310 315 320

Trp Ser Glu Ala Gly Leu Leu Ala Ser Cys Thr Pro Gly His Met Pro  
325 330 335

Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn  
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His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala  
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Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly  
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Thr Val Tyr Ser Gly Ala Leu Gly His Gln Gly Leu Gln Ala Pro Arg  
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Thr Tyr

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 <212> PRT  
 <213> Homo sapiens

<400> 16

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Gln	Val	His	Arg	Leu	Leu	Thr	His	Ala	Leu	Gly	His	Thr	Ala	Leu	Pro		
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Pro Pro Ser Leu Arg Pro Val Gln Pro Thr Trp Glu Gly Ser Ser Glu  
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Ala Gly Leu Asp Trp Ala Gly Ala Ser Phe Ser Pro Gly Thr Pro Met  
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Trp Ala Ala Leu Asp Glu Gln Met Leu Gln Glu Gly Ile Gln Ala Ser  
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Leu Leu Asp Gly Pro Ala Gln Glu Pro Gln Ser Ala Pro Trp Leu Ser  
 305 310 315 320

Lys Ser Ser Val Ser Ser Leu Arg Leu Gln Gln Leu Glu Arg Met Gly  
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Phe Pro Thr Glu Gln Ala Val Val Ala Leu Ala Ala Thr Gly Arg Val  
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Pro Pro  
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<210> 17  
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 <212> PRT  
 <213> Homo sapiens

<400> 17

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Asp Pro Gly

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 <211> 1559  
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 <212> DNA  
 <213> Homo sapiens

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 <212> DNA  
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708

<210> 21  
 <211> 616  
 <212> DNA  
 <213> Homo sapiens

<220>  
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 <223> "n" is A, C, G, or T

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 <211> 354  
 <212> DNA  
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<400> 22  
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 <212> DNA  
 <213> Homo sapiens

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 <211> 428  
 <212> DNA  
 <213> Homo sapiens

<400> 25  
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aaataagt	428

<210> 26  
 <211> 271  
 <212> DNA  
 <213> Homo sapiens

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acattccagc aaatccacct gcaatgtgag ctgcaaaaga cacctgggag aaaaggaggg	180
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 <212> DNA  
 <213> Homo sapiens

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<210> 28  
 <211> 120  
 <212> DNA  
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 <212> DNA  
 <213> Homo sapiens

<400> 29  
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 <211> 1140  
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tccattctgc	cctcccggct	tcccagtaag	cacacagccc	caggaccacc	cttgaccgtc	360
ctcaaccaag	cgatgcatgc	caggggcccc	catggccaac	tgtccccagc	actgcctctg	420
gcctcctcag	tcctgatgct	gctgatgagc	accctgtggc	tgggtgggggc	cggccccggc	480
ctggctcctgg	ccccggagct	gttgctggac	ccctggcagg	tgcaccggct	gctgacccat	540
gccctggggc	acacggccct	gccaggcctg	ctcctgagcc	tgctgctcct	gcccactgtg	600
ggctggcagc	aggagtgcc	cctgggcacg	ctgagattcc	tgcattgcctc	agccctgctc	660
gccctggcctt	ctgggctgct	ggcagtgtctg	ctggcaggcc	ttgggctgtc	cagtgcagcc	720
ggcagctgtg	gatacatgcc	tgtccacctg	gccatgtctgg	ctggggaggg	acaccgccct	780
agacggcccc	gtggggcact	gccaccgtgg	ctgtcgccgt	ggctgtgtgt	tgccctgacc	840
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ccatggctgt	ccaagtcctc	tgtctcctct	ctgagggtgc	agcagctgga	gcgcatgggc	1380
ttccctacgg	agcaggcggt	ggtggcactg	gcagccacag	gccgtgtgga	gggtgccgtg	1440
tcactgttgg	ttggaggaca	agtgggcact	gagaccctgg	tgacccatgg	aaaggggtggg	1500
cctgcccact	ccgagggctc	tgggcctccc	tagcccaggc	agagagtggg	gcacaggcag	1560
gcccttgggt	gctaagggct	gggctgcatg	tgggtagccc	gagctcctac	tctgtctaaa	1620
gagggccaca	gtggggagca	ggggcacctc	tggaggcagg	agaggcccc	cagcatgtgtg	1680
ccctagtacg	tgtttagaat	aaaaaccagt	ttgtttttca	acctggacct	ccttggag	1738

<210> 36  
 <211> 438  
 <212> PRT  
 <213> Homo sapiens

<400> 36

Met Gly Arg Val Glu Asp Gly Gly Thr Thr Glu Glu Leu Glu Asp Trp  
1 5 10 15

Asp Pro Gly Thr Ser Ala Leu Pro Ala Pro Gly Ile Lys Gln Gly Pro  
20 25 30

Arg Glu Gln Thr Gly Thr Gly Pro Leu Ser Gln Lys Cys Trp Glu Pro  
35 40 45

Glu Pro Asp Ala Pro Ser Gln Pro Gly Pro Ala Leu Trp Ser Arg Gly  
50 55 60

Arg Ala Arg Thr Gln Ala Leu Ala Gly Gly Ser Ser Leu Gln Gln Leu  
65 70 75 80

Asp Pro Glu Asn Thr Gly Phe Ile Gly Ala Asp Thr Phe Thr Gly Leu  
85 90 95

Val His Ser His Glu Leu Pro Leu Asp Pro Ala Lys Leu Asp Met Leu  
100 105 110

Val Ala Leu Ala Gln Ser Asn Glu Gln Gly Gln Val Cys Tyr Gln Glu  
115 120 125

Leu Val Asp Leu Ile Ser Ser Lys Arg Ser Ser Ser Phe Lys Arg Ala  
130 135 140

Ile Ala Asn Gly Gln Arg Ala Leu Pro Arg Asp Gly Pro Leu Asp Glu  
145 150 155 160

Pro Gly Leu Gly Val Tyr Lys Arg Phe Val Arg Tyr Val Ala Tyr Glu  
165 170 175

Ile Leu Pro Cys Glu Val Asp Arg Arg Trp Tyr Phe Tyr Arg His Arg  
180 185 190

Ser Cys Pro Pro Pro Val Phe Met Ala Ser Val Thr Leu Ala Gln Ile  
195 200 205

Ile Val Phe Leu Cys Tyr Gly Ala Arg Leu Asn Lys Trp Val Leu Gln  
210 215 220

Thr Tyr His Pro Glu Tyr Met Lys Ser Pro Leu Val Tyr His Pro Gly

225		230		235		240
His Arg Ala Arg	Ala Trp Arg Phe Leu Thr Tyr Met Phe Met His Val					
	245			250		255
Gly Leu Glu Gln Leu Gly Phe Asn Ala Leu Leu Gln Leu Met Ile Gly						
	260		265			270
Val Pro Leu Glu Met Val His Gly Leu Leu Arg Ile Ser Leu Leu Tyr						
	275		280			285
Leu Ala Gly Val Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met						
	290		295			300
Arg Ala Pro Val Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser						
	305		310		315	320
Ala His Leu Ala Asn Val Val Met Asn Trp Ala Gly Met Arg Cys Pro						
		325		330		335
Tyr Lys Leu Leu Arg Met Val Leu Ala Leu Val Cys Met Ser Ser Glu						
		340		345		350
Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser						
		355		360		365
Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly						
	370		375		380	
Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg						
	385		390		395	400
Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu						
		405		410		415
Leu Phe Ala Val Phe Trp Asn Val Phe Ala Tyr Asp Leu Leu Gly Ala						
		420		425		430
His Ile Pro Pro Pro Pro						
	435					

<210> 37  
 <211> 292

<212> PRT  
 <213> Homo sapiens

<400> 37

Met Asn Leu Asn Met Gly Arg Glu Met Lys Glu Glu Leu Glu Glu Glu  
 1 5 10 15

Glu Lys Met Arg Glu Asp Gly Gly Gly Lys Asp Arg Ala Lys Ser Lys  
 20 25 30

Lys Val His Arg Ile Val Ser Lys Trp Met Leu Pro Glu Lys Ser Arg  
 35 40 45

Gly Thr Tyr Leu Glu Arg Ala Asn Cys Phe Pro Pro Pro Val Phe Ile  
 50 55 60

Ile Ser Ile Ser Leu Ala Glu Leu Ala Val Phe Ile Tyr Tyr Ala Val  
 65 70 75 80

Trp Lys Pro Gln Lys Gln Trp Ile Thr Leu Asp Thr Gly Ile Leu Glu  
 85 90 95

Ser Pro Phe Ile Tyr Ser Pro Glu Lys Arg Glu Glu Ala Trp Arg Phe  
 100 105 110

Ile Ser Tyr Met Leu Val His Ala Gly Val Gln His Ile Leu Gly Asn  
 115 120 125

Leu Cys Met Gln Leu Val Leu Gly Ile Pro Leu Glu Met Val His Lys  
 130 135 140

Gly Leu Arg Val Gly Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser  
 145 150 155 160

Leu Ala Ser Ser Ile Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser  
 165 170 175

Gly Gly Val Tyr Ala Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val  
 180 185 190

Asn Phe Gln Glu Met Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile  
 195 200 205

Ile Ile Leu Ile Ile Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg  
 210 215 220

Phe Phe Val Pro Glu Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile  
 225 230 235 240

Ala Gly Gly Phe Ala Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys  
 245 250 255

Phe Asp Lys Ala Leu Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala  
 260 265 270

Ala Tyr Leu Ala Cys Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu  
 275 280 285

Ser Pro Ala Asn  
 290

<210> 38  
 <211> 174  
 <212> PRT  
 <213> Homo sapiens

<400> 38

Leu Cys Arg Val Gln His Ile Leu Gly Asn Leu Cys Met Gln Leu Val  
 1 5 10 15

Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu Arg Val Gly Leu  
 20 25 30

Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala Ser Ser Ile Phe  
 35 40 45

Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly Val Tyr Ala Leu  
 50 55 60

Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe Gln Glu Met Ile  
 65 70 75 80

Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile Leu Ile Ile Val  
 85 90 95

Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe Val Pro Glu Asp  
 100 105 110

Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly Gly Phe Ala Gly  
 115 120 125

Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp Lys Ala Leu Leu  
 130 135 140

Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr Leu Ala Cys Val  
 145 150 155 160

Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro Ala Asn  
 165 170

<210> 39  
 <211> 162  
 <212> PRT  
 <213> Homo sapiens

<400> 39

Met Gln Leu Val Leu Gly Ile Pro Leu Glu Met Val His Lys Gly Leu  
 1 5 10 15

Arg Val Gly Leu Val Tyr Leu Ala Gly Val Ile Ala Gly Ser Leu Ala  
 20 25 30

Ser Ser Ile Phe Asp Pro Leu Arg Tyr Leu Val Gly Ala Ser Gly Gly  
 35 40 45

Val Tyr Ala Leu Met Gly Gly Tyr Phe Met Asn Val Leu Val Asn Phe  
 50 55 60

Gln Glu Met Ile Pro Ala Phe Gly Ile Phe Arg Leu Leu Ile Ile Ile  
 65 70 75 80

Leu Ile Ile Val Leu Asp Met Gly Phe Ala Leu Tyr Arg Arg Phe Phe  
 85 90 95

Val Pro Glu Asp Gly Ser Pro Val Ser Phe Ala Ala His Ile Ala Gly  
 100 105 110

Gly Phe Ala Gly Met Ser Ile Gly Tyr Thr Val Phe Ser Cys Phe Asp  
 115 120 125

Lys Ala Leu Leu Lys Asp Pro Arg Phe Trp Ile Ala Ile Ala Ala Tyr  
 130 135 140

Leu Ala Cys Val Leu Phe Ala Val Phe Phe Asn Ile Phe Leu Ser Pro  
 145 150 155 160

Ala Asn

<210> 40  
 <211> 379  
 <212> PRT  
 <213> Homo sapiens

<400> 40

Met Ala Trp Arg Gly Trp Ala Gln Arg Gly Trp Gly Cys Gly Gln Ala  
 1 5 10 15

Trp Gly Ala Ser Val Gly Gly Arg Ser Cys Glu Glu Leu Thr Ala Val  
 20 25 30

Leu Thr Pro Pro Gln Leu Leu Gly Arg Arg Phe Asn Phe Phe Ile Gln  
 35 40 45

Gln Lys Cys Gly Phe Arg Lys Ala Pro Arg Lys Val Glu Pro Arg Arg  
 50 55 60

Ser Asp Pro Gly Thr Ser Gly Glu Ala Tyr Lys Arg Ser Ala Leu Ile  
 65 70 75 80

Pro Pro Val Glu Glu Thr Val Phe Tyr Pro Ser Pro Tyr Pro Ile Arg  
 85 90 95

Ser Leu Ile Lys Pro Leu Phe Phe Thr Val Gly Phe Thr Gly Cys Ala  
 100 105 110

Phe Gly Ser Ala Ala Ile Trp Gln Tyr Glu Ser Leu Lys Ser Arg Val  
 115 120 125

Gln Ser Tyr Phe Asp Gly Ile Lys Ala Asp Trp Leu Asp Ser Ile Arg  
 130 135 140

Pro Gln Lys Glu Gly Asp Phe Arg Lys Glu Ile Asn Lys Trp Trp Asn  
 145 150 155 160

Asn Leu Ser Asp Gly Gln Arg Thr Val Thr Gly Ile Ile Ala Ala Asn  
 165 170 175

Val Leu Val Phe Cys Leu Trp Arg Val Pro Ser Leu Gln Arg Thr Met  
 180 185 190

Ile Arg Tyr Phe Thr Ser Asn Pro Ala Ser Lys Val Leu Cys Ser Pro  
 195 200 205

Met Leu Leu Ser Thr Phe Ser His Phe Ser Leu Phe His Met Ala Ala  
 210 215 220

Asn Met Tyr Val Leu Trp Ser Phe Ser Ser Ser Ile Val Asn Ile Leu  
 225 230 235 240

Gly Gln Glu Gln Phe Met Ala Val Tyr Leu Ser Ala Gly Val Ile Ser  
 245 250 255

Asn Phe Val Ser Tyr Leu Gly Lys Val Ala Thr Gly Arg Tyr Gly Pro  
 260 265 270

Ser Leu Gly Ala Ser Gly Ala Ile Met Thr Val Leu Ala Ala Val Cys  
 275 280 285

Thr Lys Ile Pro Glu Gly Arg Leu Ala Ile Ile Phe Leu Pro Met Phe  
 290 295 300

Thr Phe Thr Ala Gly Asn Ala Leu Lys Ala Ile Ile Ala Met Asp Thr  
 305 310 315 320

Ala Gly Met Ile Leu Gly Trp Lys Phe Phe Asp His Ala Ala His Leu  
 325 330 335

Gly Gly Ala Leu Phe Gly Ile Trp Tyr Val Thr Tyr Gly His Glu Leu  
 340 345 350

Ile Trp Lys Asn Arg Glu Pro Leu Val Lys Ile Trp His Glu Ile Arg  
 355 360 365

Thr Asn Gly Pro Lys Lys Gly Gly Gly Ser Lys  
 370 375



<210> 41  
 <211> 855  
 <212> PRT  
 <213> Homo sapiens

<400> 41

Met Ser Glu Ala Arg Arg Asp Ser Thr Ser Ser Leu Gln Arg Lys Lys  
 1 5 10 15

Pro Pro Trp Leu Lys Leu Asp Ile Pro Ser Ala Val Pro Leu Thr Ala  
 20 25 30

Glu Glu Pro Ser Phe Leu Gln Pro Leu Arg Arg Gln Ala Phe Leu Arg  
 35 40 45

Ser Val Ser Met Pro Ala Glu Thr Ala His Ile Ser Ser Pro His His  
 50 55 60

Glu Leu Arg Arg Pro Val Leu Gln Arg Gln Thr Ser Ile Thr Gln Thr  
 65 70 75 80

Ile Arg Arg Gly Thr Ala Asp Trp Phe Gly Val Ser Lys Asp Ser Asp  
 85 90 95

Ser Thr Gln Lys Trp Gln Arg Lys Ser Ile Arg His Cys Ser Gln Arg  
 100 105 110

Tyr Gly Lys Leu Lys Pro Gln Val Leu Arg Glu Leu Asp Leu Pro Ser  
 115 120 125

Gln Asp Asn Val Ser Leu Thr Ser Thr Glu Thr Pro Pro Pro Leu Tyr  
 130 135 140

Val Gly Pro Cys Gln Leu Gly Met Gln Lys Ile Ile Asp Pro Leu Ala  
 145 150 155 160

Arg Gly Arg Ala Phe Arg Val Ala Asp Asp Thr Ala Glu Gly Leu Ser  
 165 170 175

Ala Pro His Thr Pro Val Thr Pro Gly Ala Ala Ser Leu Cys Ser Phe  
 180 185 190

Ser Ser Ser Arg Ser Gly Phe His Arg Leu Pro Arg Arg Arg Lys Arg

195					200					205						
Glu	Ser	Val	Ala	Lys	Met	Ser	Phe	Arg	Ala	Ala	Ala	Ala	Ala	Leu	Met	Lys
210					215					220						
Gly	Arg	Ser	Val	Arg	Asp	Gly	Thr	Phe	Arg	Arg	Ala	Gln	Arg	Arg	Ser	
225					230					235					240	
Phe	Thr	Pro	Ala	Ser	Phe	Leu	Glu	Glu	Asp	Thr	Thr	Asp	Phe	Pro	Asp	
245					250					255						
Glu	Leu	Asp	Thr	Ser	Phe	Phe	Ala	Arg	Glu	Gly	Ile	Leu	His	Glu	Glu	
260					265					270						
Leu	Ser	Thr	Tyr	Pro	Asp	Glu	Val	Phe	Glu	Ser	Pro	Ser	Glu	Ala	Ala	
275					280					285						
Leu	Lys	Asp	Trp	Glu	Lys	Ala	Pro	Glu	Gln	Ala	Asp	Leu	Thr	Gly	Gly	
290					295					300						
Ala	Leu	Asp	Arg	Ser	Glu	Leu	Glu	Arg	Ser	His	Leu	Met	Leu	Pro	Leu	
305					310					315					320	
Glu	Arg	Gly	Trp	Arg	Lys	Gln	Lys	Glu	Gly	Ala	Ala	Ala	Pro	Gln	Pro	
325					330					335						
Lys	Val	Arg	Leu	Arg	Gln	Glu	Val	Val	Ser	Thr	Ala	Gly	Pro	Arg	Arg	
340					345					350						
Gly	Gln	Arg	Ile	Ala	Val	Pro	Val	Arg	Lys	Leu	Phe	Ala	Arg	Glu	Lys	
355					360					365						
Arg	Pro	Tyr	Gly	Leu	Gly	Met	Val	Gly	Arg	Leu	Thr	Asn	Arg	Thr	Tyr	
370					375					380						
Arg	Lys	Arg	Ile	Asp	Ser	Phe	Val	Lys	Arg	Gln	Ile	Glu	Asp	Met	Asp	
385					390					395					400	
Asp	His	Arg	Pro	Phe	Phe	Thr	Tyr	Trp	Leu	Thr	Phe	Val	His	Ser	Leu	
405					410					415						
Val	Ala	Ile	Leu	Ala	Val	Cys	Ile	Tyr	Gly	Ile	Ala	Pro	Val	Gly	Phe	
420					425					430						

Ser Gln His Glu Thr Val Asp Ser Val Leu Arg Asn Arg Gly Val Tyr  
 435 440 445

Glu Asn Val Lys Tyr Val Gln Gln Glu Asn Phe Trp Ile Gly Pro Ser  
 450 455 460

Ser Glu Ala Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Met Arg  
 465 470 475 480

Gln Asp Pro Gln Val His Ser Phe Ile Arg Ser Ala Arg Glu Arg Glu  
 485 490 495

Lys His Ser Ala Cys Cys Val Arg Asn Asp Arg Ser Gly Cys Val Gln  
 500 505 510

Thr Ser Glu Glu Glu Cys Ser Ser Thr Leu Ala Val Trp Val Lys Trp  
 515 520 525

Pro Ile His Pro Ser Ala Pro Glu Leu Ala Gly His Lys Arg Gln Phe  
 530 535 540

Gly Ser Val Cys His Gln Asp Pro Arg Val Cys Asp Glu Pro Ser Ser  
 545 550 555 560

Glu Asp Pro His Glu Trp Pro Glu Asp Ile Thr Lys Trp Pro Ile Cys  
 565 570 575

Thr Lys Asn Ser Ala Gly Asn His Thr Asn His Pro His Met Asp Cys  
 580 585 590

Val Ile Thr Gly Arg Pro Cys Cys Ile Gly Thr Lys Gly Arg Cys Glu  
 595 600 605

Ile Thr Ser Arg Glu Tyr Cys Asp Phe Met Arg Gly Tyr Phe His Glu  
 610 615 620

Glu Ala Thr Leu Cys Ser Gln Val His Cys Met Asp Asp Val Cys Gly  
 625 630 635 640

Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln Phe Tyr Arg Leu  
 645 650 655

Trp Leu Ser Leu Phe Leu His Ala Gly Ile Leu His Cys Leu Val Ser  
660 665 670

Ile Cys Phe Gln Met Thr Val Leu Arg Asp Leu Glu Lys Leu Ala Gly  
675 680 685

Trp His Arg Ile Ala Ile Ile Tyr Leu Leu Ser Gly Val Thr Gly Asn  
690 695 700

Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu Val Gly Pro Ala  
705 710 715 720

Gly Ser Gln Phe Gly Ile Leu Ala Cys Leu Phe Val Glu Leu Phe Gln  
725 730 735

Ser Trp Gln Ile Leu Ala Arg Pro Trp Arg Ala Phe Phe Lys Leu Leu  
740 745 750

Ala Val Val Leu Phe Leu Phe Thr Phe Gly Leu Leu Pro Trp Ile Asp  
755 760 765

Asn Phe Ala His Ile Ser Gly Phe Ile Ser Gly Leu Phe Leu Ser Phe  
770 775 780

Ala Phe Leu Pro Tyr Ile Ser Phe Gly Lys Phe Asp Leu Tyr Arg Lys  
785 790 795 800

Arg Cys Gln Ile Ile Ile Phe Gln Val Val Phe Leu Gly Leu Leu Ala  
805 810 815

Gly Leu Val Val Leu Phe Tyr Val Tyr Pro Val Arg Cys Glu Trp Cys  
820 825 830

Glu Phe Leu Thr Cys Ile Pro Phe Thr Asp Lys Phe Cys Glu Lys Tyr  
835 840 845

Glu Leu Asp Ala Gln Leu His  
850 855

<210> 42  
<211> 619  
<212> PRT  
<213> Homo sapiens

<400> 42

Met Ser Val Ala His Met Ser Leu Gln Ala Ala Ala Leu Leu Lys  
1 5 10 15

Gly Arg Ser Val Leu Asp Ala Thr Gly Gln Arg Cys Arg Val Val Lys  
20 25 30

Arg Ser Phe Ala Phe Pro Ser Phe Leu Glu Glu Asp Val Val Asp Gly  
35 40 45

Ala Asp Thr Phe Asp Ser Ser Phe Phe Ser Lys Glu Glu Met Ser Ser  
50 55 60

Met Pro Asp Asp Val Phe Glu Ser Pro Pro Leu Ser Ala Ser Tyr Phe  
65 70 75 80

Arg Gly Ile Pro His Ser Ala Ser Pro Val Ser Pro Asp Gly Val Gln  
85 90 95

Ile Pro Leu Lys Glu Tyr Gly Arg Ala Pro Val Pro Gly Pro Arg Arg  
100 105 110

Gly Lys Arg Ile Ala Ser Lys Val Lys His Phe Ala Phe Asp Arg Lys  
115 120 125

Lys Arg His Tyr Gly Leu Gly Val Val Gly Asn Trp Leu Asn Arg Ser  
130 135 140

Tyr Arg Arg Ser Ile Ser Ser Thr Val Gln Arg Gln Leu Glu Ser Phe  
145 150 155 160

Asp Ser His Arg Pro Tyr Phe Thr Tyr Trp Leu Thr Phe Val His Val  
165 170 175

Ile Ile Thr Leu Leu Val Ile Cys Thr Tyr Gly Ile Ala Pro Val Gly  
180 185 190

Phe Ala Gln His Val Thr Thr Gln Leu Val Leu Arg Asn Lys Gly Val  
195 200 205

Tyr Glu Ser Val Lys Tyr Ile Gln Gln Glu Asn Phe Trp Val Gly Pro  
210 215 220

Ser Ser Ile Asp Leu Ile His Leu Gly Ala Lys Phe Ser Pro Cys Ile  
225 230 235 240

Arg Lys Asp Gly Gln Ile Glu Gln Leu Val Leu Arg Glu Arg Asp Leu  
245 250 255

Glu Arg Asp Ser Gly Cys Cys Val Gln Asn Asp His Ser Gly Cys Ile  
260 265 270

Gln Thr Gln Arg Lys Asp Cys Ser Glu Thr Leu Ala Thr Phe Val Lys  
275 280 285

Trp Gln Asp Asp Thr Gly Pro Pro Met Asp Lys Ser Asp Leu Gly Gln  
290 295 300

Lys Arg Thr Ser Gly Ala Val Cys His Gln Asp Pro Arg Thr Cys Glu  
305 310 315 320

Glu Pro Ala Ser Ser Gly Ala His Ile Trp Pro Asp Asp Ile Thr Lys  
325 330 335

Trp Pro Ile Cys Thr Glu Gln Ala Arg Ser Asn His Thr Gly Phe Leu  
340 345 350

His Met Asp Cys Glu Ile Lys Gly Arg Pro Cys Cys Ile Gly Thr Lys  
355 360 365

Gly Ser Cys Glu Ile Thr Thr Arg Glu Tyr Cys Glu Phe Met His Gly  
370 375 380

Tyr Phe His Glu Glu Ala Thr Leu Cys Ser Gln Val His Cys Leu Asp  
385 390 395 400

Lys Val Cys Gly Leu Leu Pro Phe Leu Asn Pro Glu Val Pro Asp Gln  
405 410 415

Phe Tyr Arg Leu Trp Leu Ser Leu Phe Leu His Ala Gly Val Val His  
420 425 430

Cys Leu Val Ser Val Val Phe Gln Met Thr Ile Leu Arg Asp Leu Glu  
435 440 445

Lys Leu Ala Gly Trp His Arg Ile Ala Ile Ile Phe Ile Leu Ser Gly  
 450 455 460

Ile Thr Gly Asn Leu Ala Ser Ala Ile Phe Leu Pro Tyr Arg Ala Glu  
 465 470 475 480

Val Gly Pro Ala Gly Ser Gln Phe Gly Leu Leu Ala Cys Leu Phe Val  
 485 490 495

Glu Leu Phe Gln Ser Trp Pro Leu Leu Glu Arg Pro Trp Lys Ala Phe  
 500 505 510

Leu Asn Leu Ser Ala Ile Val Leu Phe Leu Phe Ile Cys Gly Leu Leu  
 515 520 525

Pro Trp Ile Asp Asn Ile Ala His Ile Phe Gly Phe Leu Ser Gly Leu  
 530 535 540

Leu Leu Ala Phe Ala Phe Leu Pro Tyr Ile Thr Phe Gly Thr Ser Asp  
 545 550 555 560

Lys Tyr Arg Lys Arg Ala Leu Ile Leu Val Ser Leu Leu Ala Phe Ala  
 565 570 575

Gly Leu Phe Ala Ala Leu Val Leu Trp Leu Tyr Ile Tyr Pro Ile Asn  
 580 585 590

Trp Pro Trp Ile Glu His Leu Thr Cys Phe Pro Phe Thr Ser Arg Phe  
 595 600 605

Cys Glu Lys Tyr Glu Leu Asp Gln Val Leu His  
 610 615

<210> 43  
 <211> 434  
 <212> PRT  
 <213> Homo sapiens

<400> 43

Met Gly Arg Gly Leu Trp Glu Ala Trp Pro Pro Ala Gly Ser Ser Ala  
 1 5 10 15

Val Ala Lys Gly Asn Cys Arg Glu Glu Ala Glu Gly Ala Glu Asp Arg

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Ala	Thr	Phe	Phe	Thr	Ala	Leu	Leu	Ser	Leu	Leu	Val	Ser	Gly	Pro	Arg				
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Leu	Phe	Leu	Leu	Gln	Gln	Pro	Leu	Ala	Pro	Ser	Gly	Leu	Thr	Leu	Lys				
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Ser	Glu	Ala	Leu	Arg	Asn	Trp	Gln	Val	Tyr	Arg	Leu	Val	Thr	Tyr	Ile				
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Phe	Val	Tyr	Glu	Asn	Pro	Ile	Ser	Leu	Leu	Cys	Gly	Ala	Ile	Ile	Ile				
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Trp	Arg	Phe	Ala	Gly	Asn	Phe	Glu	Arg	Thr	Val	Gly	Thr	Val	Arg	His				
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Cys	Phe	Phe	Thr	Val	Ile	Phe	Ala	Ile	Phe	Ser	Ala	Ile	Ile	Phe	Leu				
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Ser	Phe	Glu	Ala	Val	Ser	Ser	Leu	Ser	Lys	Leu	Gly	Glu	Val	Glu	Asp				
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Ala	Arg	Gly	Phe	Thr	Pro	Val	Ala	Phe	Ala	Met	Leu	Gly	Val	Thr	Thr				
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Val	Arg	Ser	Arg	Met	Arg	Arg	Ala	Leu	Val	Phe	Gly	Met	Val	Val	Pro				
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Gln	Thr	Ser	Phe	Leu	Ser	Asn	Val	Cys	Gly	Leu	Ser	Ile	Gly	Leu	Ala				
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Tyr	Ala	His	Leu	Leu	Leu	Phe	His	Arg	Pro	Leu	Arg	Ala	Ser	Gly	Ala				
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Glu Ala Arg Ser Asp Leu Pro Leu Gln Pro Asp Glu Glu Asp Ile Arg  
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Val Gln Val Arg Leu Arg Val Phe Ser Arg Glu Glu Gly Ser Pro Glu  
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Pro Glu Thr Glu Pro Gly Ala Trp Leu Leu Pro His Thr Glu Leu Pro  
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Pro Ser Pro Val Pro Lys Pro Pro Cys Val Pro Asp Ala Ala Arg Gln  
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Trp Ser Glu Ala Gly Leu Leu Ala Ser Cys Thr Pro Gly His Met Pro  
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Thr Leu Pro Pro Tyr Gln Pro Ala Ser Gly Leu Cys Tyr Val Gln Asn  
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His Phe Gly Pro Asn Pro Thr Ser Ser Ser Val Tyr Pro Ala Ser Ala  
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Gly Thr Ser Leu Gly Ile Gln Pro Pro Thr Pro Val Asn Ser Pro Gly  
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Thr Val Tyr Ser Gly Ala Leu Gly His Gln Gly Leu Gln Ala Pro Arg  
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Ser Pro Pro Gly Ser Pro Cys Pro Glu Arg Ile Ser Arg Glu Val Ile  
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Ser Leu Gly Leu Leu Lys Val Leu Pro Lys Ser Leu Leu Thr Lys Val  
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Thr Tyr

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Gln Val His Arg Leu Leu Thr His Ala Leu Gly His Thr Ala Leu Pro  
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Gly Leu Leu Leu Ser Leu Leu Leu Leu Pro Thr Val Gly Trp Gln Gln  
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Glu Cys His Leu Gly Thr Leu Arg Phe Leu His Ala Ser Ala Leu Leu  
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Ala Leu Ala Ser Gly Leu Leu Ala Val Leu Leu Ala Gly Leu Gly Leu  
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Ser Ser Ala Ala Gly Ser Cys Gly Tyr Met Pro Val His Leu Ala Met  
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Leu Ala Gly Glu Gly His Arg Pro Arg Arg Pro Arg Gly Ala Leu Pro  
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Pro Trp Leu Ser Pro Trp Leu Leu Leu Ala Leu Thr Pro Leu Leu Ser  
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Ser Glu Pro Pro Phe Leu Gln Leu Leu Cys Gly Leu Leu Ala Gly Leu  
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Ala Tyr Ala Ala Gly Ala Phe Arg Trp Leu Glu Pro Ser Glu Arg Arg  
180 185 190

Leu Gln Val Leu Gln Glu Gly Val Leu Cys Arg Thr Leu Ala Gly Cys  
195 200 205

Trp Pro Leu Arg Leu Leu Ala Thr Pro Gly Ser Leu Ala Glu Leu Pro  
210 215 220

Val Thr His Pro Ala Gly Val Arg Pro Pro Ile Pro Gly Pro Pro Tyr

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Lys	Ser	Ser	Val	Ser	Ser	Leu	Arg	Leu	Gln	Gln	Leu	Glu	Arg	Met	Gly
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Phe	Pro	Thr	Glu	Gln	Ala	Val	Val	Ala	Leu	Ala	Ala	Thr	Gly	Arg	Val
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Ala Gly Ser Gly Ser Gly Ser Ser Cys Ser Val Gly Asp Asp Leu Pro
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Arg Gln Cys Val Glu Leu Gly Pro Arg Val Arg Val Gln Asp Met Arg
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Gly	Pro	Arg	Pro	Gly	Ser	Met	Asp	Arg	Ser	Ser	Leu	Leu	Gln	Leu	Ile
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Gln	Glu	Gln	Gln	Leu	Asp	Pro	Glu	Asn	Thr	Gly	Phe	Ile	Gly	Ala	Asp
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Thr	Phe	Ala	Gly	Leu	Val	His	Ser	His	Glu	Leu	Pro	Leu	Asp	Pro	Thr
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Glu Tyr Met Lys Ser Pro Leu Val Tyr His Pro Gly His Arg Ala Arg  
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Ala Trp Arg Phe Leu Thr Tyr Met Phe Met His Val Gly Leu Glu Gln  
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Leu Gly Phe Asn Ala Leu Leu Gln Leu Met Ile Gly Val Pro Leu Glu  
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Met Val His Gly Val Leu Arg Ile Ser Leu Leu Tyr Leu Ala Gly Val  
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Leu Ala Gly Ser Leu Thr Val Ser Ile Thr Asp Met Arg Ala Pro Val  
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Val Gly Gly Ser Gly Gly Val Tyr Ala Leu Cys Ser Ala His Leu Ala  
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Asn Val Val Met Val Met Gly Leu Pro Phe Trp Gly Val Ser Ser Glu  
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Val Gly Arg Ala Val Trp Leu Arg Phe Ser Pro Pro Leu Pro Ala Ser  
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Gly Pro Gln Pro Ser Phe Met Ala His Leu Ala Gly Ala Val Val Gly  
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Val Ser Met Gly Leu Thr Ile Leu Arg Ser Tyr Glu Glu Arg Leu Arg  
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Asp Gln Cys Gly Trp Trp Val Val Leu Leu Ala Tyr Gly Thr Phe Leu  
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